

IN THE CLAIMS

Presented below are all of the pending claims.

1           1.     (Cancelled).

1           2.     (Currently amended) An apparatus, comprising:  
2           a metal-oxide-semiconductor transistor;  
3           a metallic gate electrode coupled to a diffused gate region of said  
4 metal-oxide-semiconductor transistor and to a positive power supply  
5 voltage ~~source~~ trace; and  
6           a metallic source electrode and a metallic drain electrode coupled  
7 to said metal-oxide-semiconductor transistor and to each other and to a  
8 negative power supply voltage ~~source~~ trace, wherein said metal-oxide-  
9 semiconductor transistor includes the diffused gate region formed from  
10 material with a work function less than - 0.56 volts.

1           3.     (Previously amended) The apparatus of claim 2, wherein  
2 said material of said diffused gate region is platinum silicate.

1           4.     (Previously amended) The apparatus of claim 2, wherein  
2 said material of said diffused gate region is selected from the group  
3 consisting of tantalum nitrate, iridium, nickel, and arsenic.

1           5.     (Previously amended) The apparatus of claim 2, wherein  
2     said metal-oxide-semiconductor transistor includes a heavily-doped  
3     substrate area.

1           6.     (Previously amended) The apparatus of claim 2, wherein  
2     said metal-oxide-semiconductor transistor is a p-channel device.

1           7.     (Previously amended) The apparatus of claim 2, wherein  
2     said metal-oxide-transistor is an n-channel device.

1           8 through 19.     (Cancelled)

1           20.     (Currently amended) An apparatus, comprising:  
2     a metallic gate electrode ~~to~~ coupled to a positive power supply  
3                     voltage trace;  
4     a diffused gate region formed from a material whose  
5                     work function is less than minus 0.56 volts coupled to  
6                     said metallic gate electrode;  
7     a gate insulator ~~area~~ coupled to said diffused gate region;  
8     a channel ~~area~~ coupled to said gate insulator ~~area~~;  
9     a diffused drain ~~area~~ coupled to said channel ~~area~~; and  
10    a diffused source ~~area~~ coupled to said channel ~~area~~.

1           21.     (Previously added) The apparatus of claim 20, wherein said  
2     material is platinum silicate.

1           22.   (Previously added) The apparatus of claim 20, wherein said  
2 material is selected from the group consisting of tantalum nitrate,  
3 iridium, nickel, and arsenic.

1           23.   (Previously added) The apparatus of claim 20, further  
2 comprising a substrate which is heavily-doped.